

Testimony of
The Honorable Lawrence E. Strickling
Assistant Secretary for Communications and Information
National Telecommunications and Information Administration
United States Department of Commerce

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Hearing on
The Recovery Act and Broadband: Evaluation of
Broadband Investments on Small Businesses and Job Creation

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I. Introduction.

Chairwoman Velázquez, Ranking Member Graves, and Members of the Committee, thank you for your invitation to testify on behalf of the National Telecommunications and Information Administration (NTIA) on the broadband initiatives set forth in the American Recovery and Reinvestment Act (Recovery Act).

As we move forward in achieving President Obama's goal of universal access to broadband service, the Recovery Act's broadband initiatives – NTIA's Broadband Technology Opportunities Program (BTOP) and State Broadband Data and Development Program (Broadband Mapping Program), and the Rural Utilities Services' (RUS) Broadband Initiatives Program (BIP) – will have a profoundly positive impact on the growth and development of small businesses.

For small businesses, the Recovery Act broadband initiative presents a win-win opportunity. Small businesses can receive funds directly, either for broadband infrastructure projects serving unserved or underserved areas, or to establish public computer centers, or for sustainable adoption projects. On a larger scale, small businesses will also be the beneficiaries of these projects, through increased broadband availability for themselves and for American consumers, allowing them to leverage broadband for increased innovation, expanded commerce, and greater efficiencies and cost savings in their daily operations.

In addition, NTIA's national broadband map will provide small businesses with detailed information on broadband availability, and allow Federal, State, and local policy-makers to make more data-driven policy decisions affecting the small business community. These data will enable small broadband providers and investors to make better-informed decisions regarding the use of their private capital.

We all know the commercial benefits of broadband access for small businesses, including more affordable access to job training for employees, improved access to suppliers, and faster outreach to potential and actual consumers through Websites, emails, and e-commerce. However, greater broadband availability and use not only help small businesses succeed but also improve and enrich the lives of the communities in which they do business.

Broadband has the potential to provide businesses and communities with opportunities they, by reason of either location or economic status, had previously been unable to utilize. For example, broadband provides rural hospitals and remote health centers access to the latest medical advancements for their patients from doctors and medical experts stationed hundreds of miles away, resulting in immediate, efficient, and cost effective treatment. In addition, broadband access allows telework arrangements, which generate significant savings in real estate and utility costs, as well as help to maintain continuity of operations at an organization in the event of disasters or epidemics. Our broadband initiatives are helping small businesses in one other way as well: at least four small businesses are assisting NTIA as contractors to further our goal of efficient and expeditious disbursement of BTOP funding.

My testimony today will first discuss some of these important commercial and innovative benefits for small businesses that flow from access to broadband services. I will then provide an overview of the applications, including those from small businesses, that NTIA received in the first round of BTOP funding. I will also briefly describe NTIA's grant review process, and our efforts to maximize the beneficial impact of the BTOP program for socially and economically disadvantaged businesses (SDBs). Finally, I will provide the Committee with a glimpse of what lies ahead for BTOP, including how NTIA plans to meet the challenges I see on the horizon.

II. Commercial and Innovative Benefits of Broadband to Small Business.

Broadband has become an increasingly indispensable tool for commerce today. If you are a small business owner without access to high-speed Internet, you are effectively operating with one hand tied behind your back. Unfortunately, that's business as usual for companies in some areas of the country – especially those in rural and unserved areas – where broadband is not yet available.

The economic impact of broadband access is well documented. In 2006, the Commerce Department's Economic Development Administration sponsored an MIT and Carnegie Mellon study, which supported the view that broadband access and use does enhance economic growth and performance, and that the assumed economic impacts of broadband are real and measurable. In this study, communities examined between 1998 and 2002 with broadband experienced more rapid growth in employment, the number of businesses overall, and businesses in IT-intensive sectors, relative to comparable communities without broadband at that time.¹

Advances in broadband capabilities since that time have only heightened the gap in broadband adoption that can be associated with detrimental economic conditions for small businesses in rural communities. Just two months ago, a USDA report concluded that rural communities that had greater broadband Internet access had greater economic growth. Specifically, the study found that in rural America, employment growth was higher and nonfarm earnings greater in counties with a longer history of broadband availability.

Small businesses are the backbone of the American economy, with data from the Small Business Administration suggesting that independent businesses with fewer than 500 employees

¹ The study also indicated a possible relation between broadband availability and increased property values, and a reduction in the share of employment attributed to very small establishments, though for methodological reasons these results were not conclusive.

provided jobs for more than half of the nation's private workforce, and accounted for 64 percent of the 22.5 million net new jobs between 1993 and the third quarter of 2008.

Broadband connectivity is essential for small businesses, which hire about 40% of the high tech workforce of scientists, engineers, and computer programmers. And, with more and more consumers going online, the Internet provides these companies with unprecedented opportunities to reach millions of new customers worldwide – a reach that was once limited only to the largest corporations. Now, small businesses can compete in a 21st Century economy because the advent of high speed telecommunications has drastically increased opportunities for entrepreneurs.

One recent industry analysis highlights the increasing connection between entrepreneurial success and broadband access. According to Forrester Research, the three principal factors contributing to the growing number of successful home-based entrepreneurs are 1) rising broadband adoption; 2) increased use of social media, such as Facebook, Twitter, and LinkedIn, providing enhanced networking tools; and 3) growing availability of business support software and services for entrepreneurs, such as cloud computing, which enables business owners to store their data on easily accessible remote servers.

In addition to well-documented commercial benefits, there are a myriad of social benefits from increased broadband availability. For example, the increased use of telehealth – broadly defined as the use of electronic communications and information technology to provide and support health care when distance separates the patient and the caregiver – assists rural hospitals and remote health systems in vastly improving their capacity for treating patients. Telehealth can help cut health care costs for all firms, but especially for small businesses, which consistently cite these critical expenses as a major concern. More accessible health information,

products, and services confer real economic benefits on not only small businesses in the health sector but also to rural communities and their residents: reducing transportation time and expenses, treating emergencies more effectively, reducing time missed at work, increasing local lab and pharmacy work, and providing savings to health facilities from outsourcing specialized medical procedures. The economic benefits have been documented in an array of telehealth studies. In the August 2009 report by the USDA, a study of 24 rural hospitals noted that the biggest benefit noted by hospital staff was improved turnaround for patients, with the cost of not having telemedicine estimated to average \$370,000 per annum for the rural hospitals. Simply put, broadband is indispensable to hospitals seeking to offer high quality health care.

For this reason, small businesses in the health sector are increasingly employing telehealth applications, with substantial benefits. The American Telemedicine Association states that there are approximately 200 medical-center based telemedicine networks operating in the United States, linking over 2,500 institutions nationwide. Already, the Department of Health and Human Services (HHS) has awarded over \$260 million to support healthcare IT since 2004, including numerous telehealth projects. Whereas Federal programs generally provide the funding at hospitals, clinics, and other network sites that provide healthcare, the broadband initiative will facilitate a synergy with the existing telehealth programs by providing the critical network connectivity among network participants, and it will serve to extend the benefits of telehealth technology to reach underserved Americans in the most remote and underserved areas in the United States.

Another socially innovative benefit of broadband access is teleworking. Telework arrangements can produce considerable benefits for employers, employees, and society as a whole. For employers, allowing employees to work from home can generate significant savings

in real estate and utility costs. A June 2008 study by Wainhouse Research, which interviewed executives and managers in companies and organizations using communications and collaboration technologies, estimated that the annual costs of providing an office for the average worker can be \$10,000 or more and noted that expanded telework could reduce a firm's real estate costs by 90%. In 2006, the General Services Administration estimated that if a Federal agency invested \$16 million over three years to implement a telework program for one-half of its 100,000 person workforce, the agency would realize more than \$36 million in benefits over that same period. The benefits would include not only reductions in operating costs, but also reductions in employee absences and retention costs, as well as improved productivity.

In addition, telework programs can also help an organization maintain continuity of operations in the event of disasters or epidemics. In the wake of the September 11 attacks, Hurricane Katrina, and the potential threat of an influenza pandemic, all public and private organizations should include some form of a telework component in their emergency preparedness plans.

There is no question that the transmission speeds afforded by broadband services help most teleworking employees to perform their tasks more efficiently and more productively. They are able to access information more quickly and to download and disseminate large files and documents with less delay. In particular, broadband can support video conferencing applications that furnish the face-to-face conversations that are critical to effective business operations. Indeed, InnerPass, a company with only about ten U.S. based employees and several more overseas, recently announced that more than 1.5 million Skype users now use its integrated Web 2.0 application to combine meetings, Internet communications, and file sharing and storage.

In sum, greater broadband availability impacts much more than the commercial operations and profit margins of small businesses. Broadband, by providing greater access to information, health care, education, and job opportunities, has the power to transform communities across the country and sow the seeds for the next generation of American entrepreneurship and innovation.

III. Overview of Applications Received.

The level of interest shown by applicants in the first round of BTOP and BIP has been extraordinary. Overall, we received almost 2,200 applications requesting nearly \$28 billion in funding for proposed broadband projects reaching all 50 U.S. States, five territories, and the District of Columbia. The fact that applicants requested nearly seven times the total amount of funding available in this first round of broadband funding underscores the extent of interest in expanded access to broadband service throughout the country.

In this first round of funding, NTIA will award up to \$1.6 billion in grants. Of this amount, up to \$1.2 billion will fund broadband infrastructure, both last mile and middle mile projects. We will also award grants totaling \$50 million for public computer center projects and \$150 million for projects that promote broadband demand and affordability.

NTIA received first round applications from a diverse range of parties including State, tribal, and local governments; nonprofits; industry; anchor institutions, such as libraries, universities, community colleges, and hospitals; public safety organizations; and other entities in rural, suburban, and urban areas. Working together, NTIA and RUS posted online – at www.broadbandusa.gov – a searchable database containing descriptions of all applications received, as well as maps of the geographic areas of coverage proposed by applicants in the first funding round.

NTIA was pleased to see strong participation from the small business community, especially from socially and economically disadvantaged businesses (SDBs). Of the 1,785 applications to the BTOP and joint BTOP and BIP programs, 13.9% were from SDBs or from applicants collaborating with SDBs. Specifically, approximately 114 SDBs applied, and another 135 applicants indicated collaboration with socially and economically disadvantaged businesses, either as a sub-awardee, contractor, subcontractor, or vendor. In this round, SDBs requested approximately \$1.86 billion in federal grants and loans, with a total match commitment of \$640 million. When including applications received from the entire small business community, the participation levels are significantly higher. NTIA is committed to ensuring that SDBs have every opportunity to participate in this historic initiative.

To assist potential applicants with the application process, NTIA and RUS embarked on an educational campaign earlier this year, holding ten workshops across the country.² For SDBs, we held three additional meetings focusing exclusively on the challenges faced by minorities and small and economically disadvantaged businesses. The Commerce Department's Minority Business Development Agency (MBDA) and Office of Small and Disadvantaged Business Utilization (OSDBU) supported our efforts to publicize BTOP's opportunities to minority firms and small businesses and recruit application reviewers. I am heartened to see the number of total applications from SDBs, which I believe reflects our successful outreach to this business community. I am also committed to continue this outreach to ensure even higher SDB participation in the next BTOP funding round.

² In July 2009, NTIA held public workshops in the following cities: Washington, DC area; Boston, MA area; Charleston, WV; Birmingham, AL; Memphis, TN; Lonoke, AR; Billings, MT; St. Paul, MN; Albuquerque, NM; and Los Angeles, CA.

After months of hard work by the staffs at NTIA and RUS, as well as by public and private applicants across the nation, we have before us a strong initial pool of broadband proposals.

IV. Overview of Application Evaluation Process and Evaluation Criteria.

NTIA and RUS are now reviewing the nearly 2,200 applications received for the first funding round. In the first phase of this review, at least three expert reviewers will evaluate each application against established criteria, including the proposed project's purpose, benefits, viability, budget, and sustainability. Those applications considered the most highly qualified in the initial review phase are advancing for further consideration.

Each State and territory has been given the opportunity to comment on the applications relevant to its jurisdiction. The Act recognizes that State and territorial officials have a unique perspective on broadband needs within their jurisdictions and we are evaluating the recommendations which they submitted in mid-October.

As applications successfully pass the initial review phase, they are being moved along for additional "due diligence," which may include requesting that applications submit supplementary information as necessary to substantiate representations made in their applications. NTIA is reviewing and analyzing this supplemental information. I will make the final selections of BTOP awards, consistent with the statutory directives established by Congress in the Recovery Act.

Throughout the evaluation process, NTIA is committed to ensuring that SDBs are provided careful consideration. Specifically, in the application for BTOP grants, eligible entities were required to indicate whether they are, or will collaborate with, an SDB as defined under Section 8(a) of the Small Business Act. Collaboration is defined to include the involvement of

SDBs as a sub-awardee, contractor, subcontractor, or vendor. NTIA's expert reviewers are instructed to score a project's linkages to unaffiliated organizations as an ongoing and integral part of the project planning and operation. In order to receive the full score for this criterion, at least one partner will need to meet the definition of SDB. Finally, during the final selection of BTOP awardees, NTIA will take into account, among other factors, the extent to which the application satisfies the BTOP program purposes, including whether the applicant is a socially and economically disadvantaged business. In these ways, NTIA's evaluation process encourages and rewards meaningful involvement by SDBs.

V. Mapping and Small Business.

The national stimulus package passed by Congress in February also directed NTIA to implement the Broadband Data Improvement Act and to develop and maintain a broadband inventory map. The national broadband map will provide valuable tools to small businesses including information about broadband availability and other information that can serve as a basis for market research, will enable small business broadband providers and investors to make better-informed decisions regarding the use of their private capital, and will allow Federal, State, and local policy-makers to make more data-driven policy decisions affecting the small business community.

NTIA has established the development and maintenance of a national broadband map as one of its highest priorities and, in following Congress' directive that it develop and maintain a "comprehensive" map of both "capability and availability," NTIA will fund high-quality projects that are designed to gather data on broadband availability, technology, speed, infrastructure, and, in the case of wireless broadband, the spectrum used. I believe that this information is critical to

fulfilling NTIA's statutory mandate, and I am pleased that this effort received support from government, public interest, small business, and industry stakeholders alike.

I am very encouraged by the level of participation in NTIA's Broadband Mapping Program, with applications submitted from every State, territory, and the District of Columbia. These 56 applicants requested a total of approximately \$100 million in grant awards to fund broadband mapping projects for an initial two-year period and approximately \$26 million to fund broadband planning projects. Unlike BTOP's multiple funding round approach, only one mapping grant will be awarded to each State or territory eligible to receive a grant. This will help ensure that the projects will benefit from significant state involvement and oversight. As we review these applications, we see that many of the 56 applicants are partnering with small businesses to collect, analyze and verify the broadband data for each state.

Earlier this month, NTIA awarded the first four grants under this program to fund mapping activities in California, Indiana, North Carolina and Vermont. Yesterday, NTIA announced four additional grants to fund mapping activities in West Virginia, Arkansas, New York, and the District of Columbia. NTIA will continue to announce awards on a rolling basis through the fall.

We aim to leverage the initial information gained from the mapping projects to make more data-driven decisions on BTOP grants in the future. We will have a first set of substantially complete broadband mapping data by February 2010, and we will complete a comprehensive, interactive national broadband map by February 17, 2011, as directed by the statute.

VI. Next Round of BTOP Funding

As we prepare for the next funding round, the first task is to evaluate how the first round has worked. NTIA and RUS are finalizing a new request for information that will help us shape the Round Two process. The request for information will solicit the public's views on how the first round worked for applicants and what changes and clarifications should be made for the second round of applications. Our goal is to improve the broadband programs and specifically the application experience, and we will have the time necessary to adjust those aspects of the process that need to be improved. Also, parties who wish to collaborate on an application, such as through consortia or public-private partnerships, will have additional time to work out the details of those arrangements.

Looking forward, I must underscore the importance of our oversight objectives for the program. NTIA is committed to ensuring that taxpayers' money is spent wisely and efficiently. Since the inception of BTOP, we have been working with the Department of Commerce's Inspector General to design this program in a manner that minimizes the risk of waste, fraud, and abuse. As we move forward and project construction begins, NTIA will enhance its auditing and monitoring responsibilities, including site visits to grantees. I will, of course, keep the Committee apprised of our progress on those efforts.

NTIA also is working diligently to make certain that the broadband projects funded by BTOP and the broadband mapping information developed under the Broadband Mapping Program serve as valuable inputs to our long-term broadband strategy. At its core, the broadband initiatives in the Recovery Act offer a tremendous opportunity to stimulate job creation and economic growth both in the near term and for the future.

We will continue to ensure that implementation of the Recovery Act broadband initiatives is a collaborative and coordinated effort with RUS and others in the Administration. We are also committed to making this process as transparent and as efficient as possible, and we will obligate the \$7.2 billion in Recovery Act broadband funds by September 30, 2010, as required by the Act.

Thank you again for the opportunity to testify this morning. I will be happy to answer your questions.